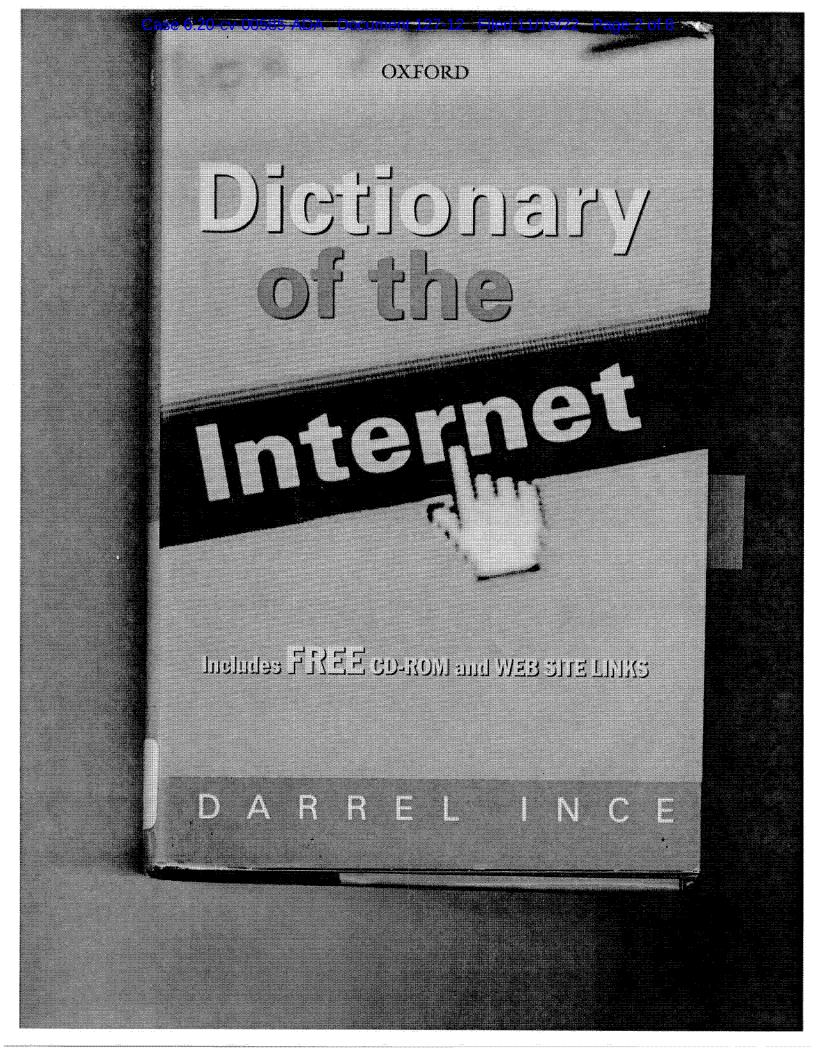
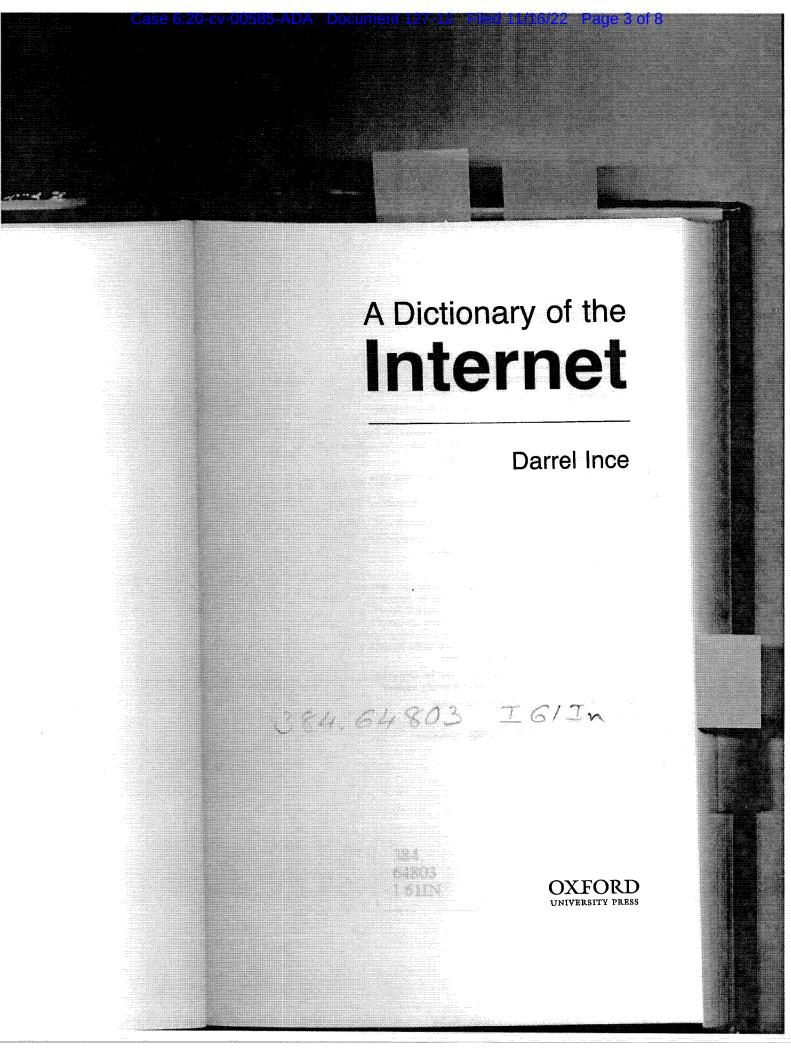
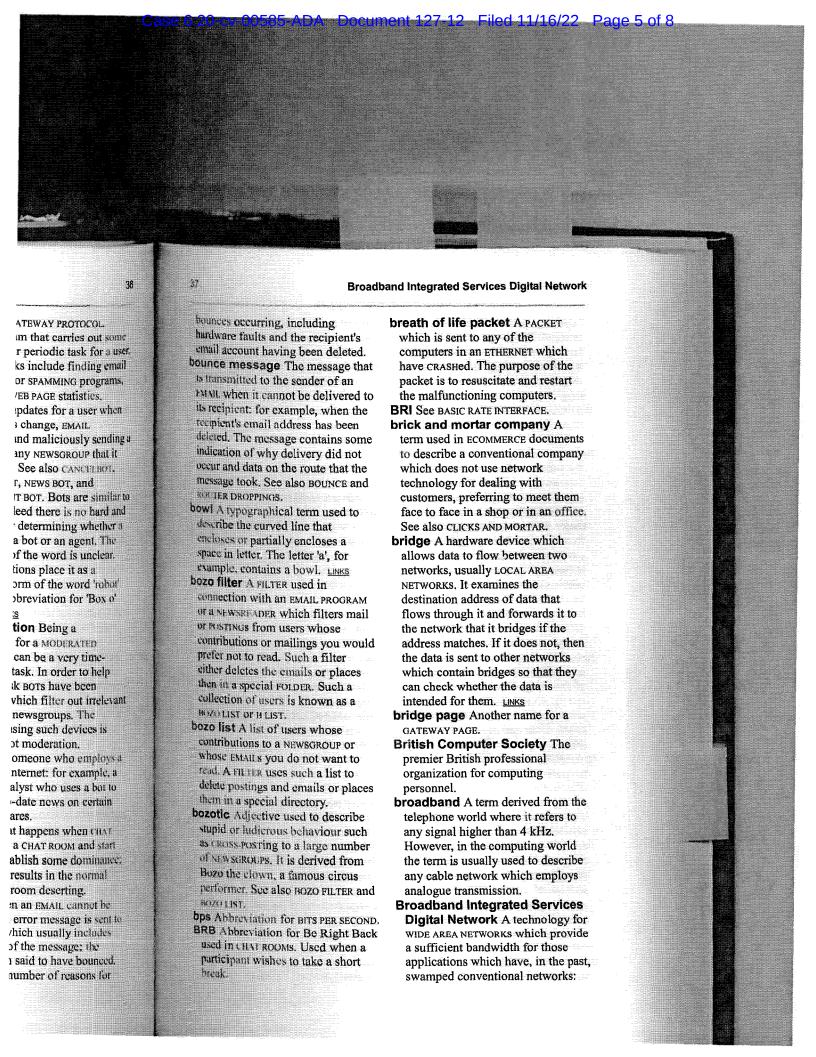
## **EXHIBIT 12**







known as the consultative committee for international telephone and telegraph. Links

International Trading in Arms
Regulations The US regulations
that prevented highly secure
cryptographic technology from
being exported from the United
States. It categorized cryptography
software as an armament.
Conditions have relaxed on export
since the early part of 2000 with
only a handful of countries being
prevented from receiving
cryptography technology. See
EXPORT GRADE SECURITY and

DOMESTIC GRADE SECURITY.

internaut An expert user of the
Internet.

internesia The state an Internet user is in when he or she cannot remember the location of a piece of information on the net.

**Internet** The Internet is a network which consists of a number of other networks connected together using the TCP-IP set of PROTOCOLS. A major part of the Internet is the WORLD WIDE WEB: a collection of documents interlinked by means of HYPERLINKS. The most popular technologies used in the Internet are EMAIL, the FILE TRANSFER PROTOCOL, and the World Wide Web. See also INTERNET HISTORY, INTERNET STATISTICS, INTERNET STANDARD, INTERNET LAYERED ARCHITECTURE, INTERNET SOCIETY, INTERNET SERVICE PROVIDER, and INTERNET LAYER.

## Internet access provider

Synonymous with INTERNET SERVICE PROVIDER. Gradually the term is being used less and less in this context and is being used to describe companies who sell high-speed Internet access as a wholesaler to

both Internet service providers and other organizations such as companies. Often abbreviated to IAP.

Internet Activities Board The previous name of the INTERNET ARCHITECTURE BOARD, a body which is charged with maintaining the openness of the Internet.

Internet advertising The process whereby a product or service is made visible to users of the Internet, usually via BANNER ADVERTS placed on WEB PAGES. Such adverts are often negotiated by an INTERNET ADVERTISING BUREAU or may form part of an ADVERT AUCTION. The Web site on which the adverts are placed is normally paid a fixed amount when a visitor either clicks on the banner advert to take them to the advertiser's site, or when a purchase is made after the banner advert has been clicked; the amount paid for the former is usually very small. The monitoring of the use of banner adverts and the payment process is often carried out by an intermediary company known as a PURCHASE INTERMEDIARY OF a CLICK INTERMEDIARY. There are other forms of advertising on the Internet: for example, the use of SPAM or NEWSGROUPS devoted to commercial announcements. However, the bulk of the advertising associated with the Internet is that associated with banner adverts. LINKS

Internet advertising bureau A company that negotiates the placing of BANNER ADVERTS ON WEB PAGES. In functional terms they differ little from their print and other media equivalents although, in technical terms, where negotiations involve many thousands more adverts which

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Novell. It is often abbreviated to IPX.

Internet PCA Registration

Authority An organization operated by the INTERNET SOCIETY which administers the granting of certificates to various bodies known as a POLICY CERTIFICATION AUTHORITY. These authorities, in turn, issue security certificates to individual organizations which are known as a CERTIFICATE AUTHORITY. Hence the Internet PCA Registration Authority lies at the top of the pyramid which is concerned with the granting of SECURITY CERTIFICATES.

Internet piracy The theft and reuse of entities found on the Internet. These include VIDEO CLIPS, GRAPHIC IMAGES, and text. It is also the term that is used to describe the wholesale theft of WEB SITES where an illicit organization copies an existing site and places a new HOME PAGE for the site as part of a criminal enterprise. In general the unauthorized use of Internet media is as much a crime as the unauthorized use of any other media. See INTERNET COPYRIGHT.

Internet pornography The storage and sale of pornographic still and moving images on the Internet, usually on the WORLD WIDE WEB. Internet pornography was the first ECOMMERCE application that was a financial success. Even as early as the 1980s, when the Internet was only populated by a relatively small number of academics, government staff, pornographers, and their customers, there were a number of thriving FILE TRANSFER PROTOCOL sites which sold pornography

businesses have always been in the forefront in terms of employing new technology such as VIDEO STREAMING and new businesses models; indeed many commentators have ascribed the success of advanced technologies to the demands placed on them by pornographers.

Internet Protocol A protocol which forms part of TCP-IP. Its function is to carry out the transport of data packets collected together by the TRANSMISSION CONTROL PROTOCOL (TCP) to a destination computer. It also carries out this function for data collected together by the UNRELIABLE DATAGRAM PROTOCOL. It is usually abbreviated to IP.

Internet Protocol Address Often known as the IP address. This is a unique 32-bit address which identifies a computer and the SUBNETWORK in which it resides. Most users see this address as a series of four integers separated by full stops, a notation known as DOTTED QUAD NOTATION. The address is used by the TCP-IP protocols to correctly send a collection of DATAGRAMS to a destination computer identified by its Internet Protocol address. There are four formats for this address according to the size of the SUBNETWORK involved and whether MULTICASTING is used. See also internet protocol version 6. LINK

Internet Protocol datagram
header Data that is placed in a
DATAGRAM which provides
important information used by the
protocols that make up TCP-IP: for
example, the header contains the
sending address of the computer that
initiated the datagram and the
destination computer which is due to

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rm A FORM found on in ECOMMERCE site to provide iich can be sed to identify themalso used to store a visitor, such as which is used in egistration forms are i in conjunction with thich stores a COOKIE. anization responsible OMAIN NAMES for the TERNET PROTOCOL

asionally used in aning 'hello again'. base A DATABASE in ridual records are other into a table. base technology is technology for e of data required in plications. For line bookseller stores book that it sells in a ase, with each record individual book. TYPERLINK in an WEB not include the full ination document e URL part of the ation document is respect to the folder

in which it is contained. The advantage to doing this is that relatively linked pages are much more immune to changes in the structure of a WEB SITE and require

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relay rape The process of illegally using a MAIL SERVER to send SPAM.

less change when, for example, a

relevance feedback A feature of some SEARCH ENGINES such as SEARCHKING which allows the user to communicate to the search engine that a particular document was relevant. This information is then used to search for further documents. It was originally used in the WIDE AREA INFORMATION SERVERS.

## relevancy algorithm An

ALGORITHM used by a SEARCH ENGINE to decide whether a particular WEB PAGE is relevant to a SEARCH QUERY that has been typed in by the user. Such algorithms are highly secret: revealing their details would mean that developers who submit their Web pages to a search algorithm would tailor their pages to be prominently displayed when a query is made. LINKS

religious war An argument, which usually takes place in a NEWSGROUP, in which the participants take violent, uncompromising positions. A typical religious war is that between the proponents of Microsoft's Windows operating system and non-Windows systems such as LINUX.

remote access Access to a network by a user who is not directly connected to the network. This form of access is usually implemented via some form of DIAL-UP ACCESS.

remote access concentrator A system usually used by an INTERNET

SERVICE PROVIDER to provide REMOTE ACCESS to their SERVERS. See also DIAL-UP ACCESS.

remote procedure call

remote access server A SERVER
which acts as a FRONT END to a
network. It provides an access point
to users of the network who use
DIAL-UP ACCESS and effectively acts

remote execution service A service found on TCP-IP networks which allows users to execute programs on another computer without incurring the overheads associated with facilities such as TELNET. It is often abbreviated to REX.

as a very powerful switch.

Remote Method Invocation A DISTRIBUTED OBJECT technology associated with the JAVA programming language. It enables an object written in Java to communicate with another Java object on another computer. The objects that communicate must be programmed in Java; this is in contrast to CORBA, another distributed object technology, where the objects can be developed in a variety of programming languages. Remote Method Invocation technology does not use an INTERFACE DEFINITION LANGUAGE. The

remote network monitor A device, possibly a special-purpose piece of hardware or a computer, which collects information about network traffic.

term is often abbreviated to RMI.

LINKS

remote procedure call A
technology that enables a
programmer to write program code
which, when executed on one
computer, results in the execution of
other code on another computer to